



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/734,182

12/15/2003

Chien-Ju Lee

0941-0879P

2151

2292

7590

06/13/2006

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

PATEL, ANAND B

ART UNIT

PAPER NUMBER

2116

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/734,182	Applicant(s) LEE, CHIEN-JU	
	Examiner Anand Patel	Art Unit 2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-17 is/are allowed.
- 6) ☒ Claim(s) 1 and 4 is/are rejected.
- 7) ☒ Claim(s) 2,3 and 5-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 1-12 are objected to because the acronym "PDA" should be rewritten as "Personal Digital Assistant".
2. Claim 5 is objected to because the phrase "integrated circuit(IC)" should be rewritten as "integrated circuit" because there appears to be no reference in the claims to an IC or integrated circuit.
3. Claims 9-12, 16-17 are objected to because the term "Gnd" should be rewritten as "Ground".
4. Claim 11 is objected to because the phrases "the selecting device" and "the second resistor" lack proper antecedent basis. Applicant is advised to change the claim to depend from claim 9.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No 6594768 to Ono et al (Ono) in view of US Patent No 6697953 to Collins.

- As per claim 1, Ono discloses a device (124), wherein the device outputs a current (figure 4) within a first current range to an external device (power-supply-interruption control units 125) when supplied with a battery power (column 14, lines 12-22) and outputs a current within a second current range to the external device when supplied with external power through an adapter (inherent given column 14, lines 12-22; figure 4, input to 70), comprising:

Art Unit: 2116

- A main device (82), for performing necessary data processing, enabling a control signal when supplied with external power through the adapter (column 8, lines 60-64);
- A switch device (76) comprising a first input terminal receiving battery power (figure 4, input on 76 from 74), a second input terminal receiving external power (figure 4, input on 76 from 72), a control terminal receiving the control signal (figure 4, input on 76 from 82), and an output terminal outputs battery power when the control signal is disabled and outputs external power when the control signal is enabled (figure 4, output from 76);
- A current limiting device (inherent given reduction in current described in column 14, lines 12-22) coupled to the output terminal of the switch device, wherein the current limiting device outputs a current within the first current range to the external device when the switch device outputs battery power, and outputs a current within the second current range to the external device when the switch device outputs external power (column 14, lines 12-22).

Ono fails to disclose wherein the device is a PDA. Collins teaches a battery-powered device that can be a PDA (column 2, lines 45-49). An advantage of the system taught by Collins is the ability to automatically reduce power consumption (column 2, lines 43-45). It would have been obvious to one of ordinary skill in the art at the time of invention to modify Ono with the power reduction scheme as taught by Collins. Motivation to modify is to save power and increase the operational life of the device.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ono in view of Collins and US Patent No 6477605 to Taki et al (Taki).

- As per claim 4, Ono discloses an external device (power-supply-interruption control units 125). Ono and Collins fail to disclose wherein the external device is a digital camera. Taki teaches a device being a digital camera (column 1, lines 12-16). An advantage of the system taught by Taki is the ability to reduce power consumption (column 1, lines 55-57). It would have been obvious to one of

ordinary skill in the art at the time of invention to modify Ono and Collins with the digital camera as taught by Taki. Motivation to modify is to save power and cut costs.

Allowable Subject Matter

8. Claims 12-17 are allowed. US Patent No 6594768 to Ono et al discloses a current limiting device built into a device, wherein the device is used as a host and is connected to an external device, wherein the current limiting device outputs a current within a first current range to the external device when the device is supplied with battery power, and wherein the device enables a control signal and the current limiting device outputs a current within a second current range to the external device when the device is supplied with external power through an adapter. Ono et al also disclose a switch device comprising a first input terminal receives battery power, a second input terminal receives external power, a control terminal receives the control signal, and an output terminal outputs battery power when the control signal is disabled and outputs external power when the control signal is enabled and a current limiting module coupled to the output terminal of the switching device. US Patent No 6697953 to Collins teaches a battery-operated device such as a PDA. Prior art fails to disclose or suggest specifics of the current limiting device including: a first resistor, coupled between the current limiting module and a voltage level (Gnd), to provide a first impedance; a second resistor for providing a second impedance; and a selecting device serially connected with the second resistor, wherein both the selecting device and the second resistor are coupled between the current limiting device and the voltage level (Gnd), wherein the selecting device is turned off and the limiting module receives only the first impedance when the control signal is disabled, and wherein the selecting device is turned on and the limiting module receives the first and the second impedances when the control signal is enabled.

9. Claims 2-3, 5-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any

Art Unit: 2116

intervening claims. Prior art does not disclose or suggest the current limiting device further comprising: an impedance device for providing a first impedance and a second impedance, wherein the impedance device outputs the first impedance when the control signal is disabled and outputs the first and the second impedances when the control signal is enabled; and a current limiting module coupled to the output terminal of the switching device, wherein the current limiting module outputs the current within the first current range when receiving the first impedance and outputs the current within the second current range when receiving the first and the second impedances.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent No 6763478 to Bui discloses a system running on AC power and the system limiting current to a device when the system switches to battery power.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anand Patel whose telephone number is (571) 272-7211. The examiner can normally be reached on Mon-Fri 8AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on (571) 272-3670. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ASP


JOHN R. COTTINGHAM
PRIMARY EXAMINER